

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-187
UPDATED WASTE DISCHARGE REQUIREMENTS FOR:

Waste Management of Alameda County
East Bay Regional Park District
Oyster Bay Regional Park
San Leandro, Alameda County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. The East Bay Regional Park District is the site's current legal owner.
2. Waste Management of Alameda County, a division of Waste Management, Inc., is the previous owner and landfill operator and currently monitors the groundwater and leachate monitoring points of the site. Waste Management of Alameda County has transferred title of the Davis Street Landfill (excluding the area of the transfer station) to the East Bay Regional Park District (the District). Both parties, the Oyster Bay Regional Park and Waste Management of Alameda County, (hereinafter referred to collectively as the discharger) are responsible for any corrective action measures.

PURPOSE OF ORDER UPDATE:

3. The primary objectives of this order are to revise the site groundwater and leachate monitoring program, and to bring the site into compliance with the current regulations of Article 5, Title 23, Division 3, Chapter 15 of the California Code of Regulations. Additionally, this Order requires the discharger to develop and implement an acceptable leachate management plan. The implementation of such a plan must cause an inward leachate gradient which shall prevent leachate migration off site. Similarly the District must also develop an irrigation plan. This plan must document the method of irrigation, irrigation frequency and include a soil moisture monitoring program. Implementation of such an acceptable program will preclude excessive water application, thus preventing leachate buildup in the landfill.

SITE HISTORY

4. The Davis Street Landfill (now known as Oyster Bay Regional Park) is a closed solid waste management facility located at the western terminus of Davis Street in San Leandro, California. The landfill was owned, operated, and closed by the Oakland Scavenger Company (OSC)[Currently, OSC is known as Waste Management of Alameda County]. Landfilling operations began in 1942 and continued until closure in 1980. Waste Management, Inc. (previously called Waste Management of North America Inc.), acquired Waste Management of Alameda County in November of 1986, which was named Waste Management of Alameda County in 1993. Full Title of this site (excluding the area occupied by the transfer station) was subsequently transferred to the District.
5. The site covers approximately 247 acres (Figure 1), just east of the San Francisco Bay and is built on reclaimed tidal flat lands. A perimeter levee (dike) was constructed during the early 1940's into San Francisco Bay. The area enclosed by the levee was subsequently de-watered and waste was placed directly on the tidal mud flats. The site is currently divided into two main parts, a transfer station and the main landfill area. The transfer station occupies the northern portion of the site and the main landfill area occupies the remainder of the site.
6. On May 16, 1963 the Board adopted Resolution 464 prescribing Waste Discharge Requirements for Oakland Scavenger Company for its Davis Street Sanitary Landfill.
7. On October 17, 1978 the Board adopted Order No. 78-84 , prescribing Waste Discharge Requirements for Oakland Scavenger Company.
8. On August 5, 1980 the Board adopted Waste Discharge Requirements Order No. 80-37.

GEOLOGIC SETTING OF THE SITE

9. The Davis Street Landfill is situated on the eastern side of San Francisco Bay within the Bay Plain Physiographic Province. This Province is bordered on the east by the Diablo Mountain Range. The eastern portion of the Bay Plain , at the base of the foothills of the Diablo Range, is underlain by predominantly coarse-grained sediments. These sediments were deposited within the high energy environment of the San Leandro alluvial fan. The sediments in the western portion of the Bay Plain , which underlie the landfill site, are predominantly fine-grained and have been separated into the Young Bay Mud and underlying Old Bay Mud units. These sediments were deposited in the relatively low energy San Francisco

Bay and estuary environments. The Bay Mud sediments are 40 to more than 100 feet thick and are underlain by 600 to 1,000 feet of interbedded clay, sand and gravel layers that are a part of the western extension of the San Leandro alluvial fan. The bedrock unit underlying the alluvial fan sediments is not known but is most likely a part of the Franciscan Group that has been mapped to the east of the site. Figure 2 shows the Quaternary Geology units underlying the site and the location of the Hayward Fault. The Hayward Fault is located about 4 miles east of the landfill site. This fault is classified as an active fault in this region and no other faults have been mapped.

10. The site geology was evaluated from geotechnical data collected during the site development. Results of the collected geotechnical data indicated that the landfill and its adjacent area consist of non compacted fill and refuse.
11. The collected data indicate that the site is underlain by 10 to 35 feet of Young Bay Mud consisting of dark gray, plastic clays. Sand zones, 2 to 11.5 feet thick were found beneath the Young Bay Mud. Unconsolidated sediments several hundred feet thick occurs beneath these deposits.
12. The perimeter levee fill generally consists of gray and brown silty clay 5.5 to 12.5 feet thick with gravelly clay beneath the road surface at the levee top. The Young Bay Mud generally consists of dark gray, low to high plasticity silty clays, of which the bottom 2 to 11.5 feet locally consists of clayey and silty sands, fine to medium sands or sandy fine gravel. The underlying Old Bay Mud consists of a light olive brown high-plasticity clay with occasional 1/16 to 1/8 inch-diameter clay nodules. The clay nodules are mostly due to desiccation when the soils were exposed at the surface in the past.
13. The facility's SWAT report indicated two discontinuous sand and gravel layers. These layers are 2 to 10 feet thick underlie the landfill at a depth of from 10 to 35 feet below the ground surface.

HYDROGEOLOGIC SETTING OF THE SITE

14. The upper most aquifer beneath the site, the water table aquifer, comprises water-bearing sand and gravel deposits encountered within the bay muds between about 10 to 50 feet below grade. Because of the low permeability of the intervening clay and silt deposits (typically 10^{-7} to 10^{-8} cm/sec), groundwater flow within the water table aquifer is thought to occur primarily within these interbedded sand and gravel layers. The water table aquifer is generally considered unconfined, however, the individual water-bearing layers which comprise the aquifer are commonly under confined conditions.

15. The beneficial uses of waters along the East San Francisco Bay shoreline are as follows:
 - a. Wildlife habitat
 - b. Brackish and salt water marshes
 - c. Water contact recreation
 - d. Non-water contact water recreation
 - e. Commercial and sport fishing
 - f. Preservation of rare and endangered species
 - g. Estuarine habitat
 - h. Fish migration and spawning
16. The present and potential beneficial uses of the deeper groundwater are as follows:
 - a. Domestic and municipal water supply
 - b. Industrial process supply
 - c. Industrial service supply
 - d. Agricultural supply

MONITORING PROGRAM:

17. Groundwater quality at the Davis Street Landfill is monitored by ten onsite groundwater monitoring wells. There are two series of wells which monitor the quality of groundwater, the MW Series and the G-Series. The G-Series wells monitor the water table aquifer which consists primarily of clay and silt with only minor thin sand interbeds. The MW-series wells (MW-01 to MW-06) monitor the relatively thick sand lenses at the base of the Younger Bay Mud. The MW-series wells monitor the water-bearing sand layers which are separated from the overlying landfill by low permeability Younger Bay Mud clay.
18. In addition to the groundwater monitoring wells, there are 13 leachate monitoring wells, which are monitored for the leachate level only. These thirteen wells are designated as the GR- Series wells (GR-1 to GR-13).
19. According to Section 13273 of California Water Code, a Solid Waste Assessment Test (SWAT) was conducted for the site in 1988. The result of the water sample analysis indicated that the site was leaking contaminants at the time of investigation. All wells contained one or more than one inorganic or general water quality parameters in concentrations above the drinking water standards. These elevated levels do not appear to be indicative of site impact but rather to general fluctuations in the saline setting of the landfill.
20. The annual self monitoring report of 1993 and the second quarter self monitoring

report of 1994 of the site support the 1988 SWAT findings. Those two reports have stated that volatile and semi-volatile compounds have been detected in some groundwater monitoring wells (notably G-03, G-04, and MW-01). The concentration of the leaking organic contaminants (benzene, chlorobenzene, and 1,4-di-chlorobenzene) detected exceeds the state primary maximum levels for drinking water standards.

21. The leachate elevation in monitoring wells were highly variable and were associated with heavy rain falls during the spring of 1993. The leachate level variability is in part the result of poor maintenance of the landfill cover by allowing ponding upon cap during the rainy season, accumulation of precipitation water around the gas monitoring stations and possibly excessive irrigation.
22. Reporting of results (finding 23) is to be included with the regularly scheduled submittals for this Self Monitoring Program.
23. Federal Regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activities, including landfills, to obtain a NPDES permit for storm water discharges. The State Water Resources Control Board has issued a General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAS000001). This facility is subject to these requirements. Pursuant to the Stormwater Discharge Program, this facility is required to submit a Notice of Intent for coverage under the General Permit; to prepare and implement a monitoring program; and to submit an annual report. Compliance with the monitoring and reporting requirements of this Order are intended to assure compliance with the requirements of the General Permit.
24. The landfill does not have any Leachate Collection and Recovery System.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

25. This site is exempt from the provision of the California Environmental Quality Act pursuant to Section 15308, Title 14 of the California Code of Regulations.
26. Sanitary landfills could potentially impact groundwater if not properly designed maintain and/or operated. Groundwater can also be affected by water that percolates through waste materials and extracts or dissolves substances from it and carries them into the groundwater.
27. The preceding impacts are mitigated or avoided by design measures to control erosion and assure containment of waste and leachate through the use of leachate collection and removal systems.

28. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge, and has provided them with an opportunity to submit their written views and recommendations.
29. The Board in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED pursuant to authority in Title 23, Chapter 15, Section 2581 and California Water Code Division 7 that the dischargers, their agents, successors and assigns are to conduct postclosure maintenance and monitoring as follows:

A. PROHIBITIONS

1. Wastes shall not be in contact with ponded water.
2. Leachate from wastes and ponded water containing leachate or in contact with refuse shall not be discharged to waters of the State or of the United States.
3. The site is considered a closed facility. Therefore, no additional wastes of any origin or type shall be allowed to be deposited or stored within or upon this site. (The District develops the surface area of the landfill into a public park, and is allowed to take and use clean fill material for the development of the park only)
4. The discharger, or any future owner or operator of this site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:
 - a. Surface Waters
 1. Floating, suspended, or deposited macroscopic particulate matter or foam.
 2. Bottom deposits or aquatic growth.
 3. Adversely alter temperature, turbidity, or apparent color beyond natural background levels.
 4. Visible, floating, suspended or deposited oil or other products of petroleum origin.
 5. Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or

waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

b. Groundwater

The groundwater shall not be degraded as a result of the waste maintained at the facility.

B. SPECIFICATIONS

1. All reports pursuant to this Order shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist.
2. Waste shall not be exposed to the surface.
3. The site shall be protected from any washout or erosion of wastes from inundation which could occur as a result of a 100-year 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.
4. A Leachate Collection and Recovery System (LCRS) must be developed for the site. The LCRS must cause leachate inward gradient to prevent off site leachate migration.
5. The LCRS shall be inspected monthly or more frequently as necessary, and any accumulated fluid shall be removed.
6. The leachate collection and removal system (LCRS) shall be maintained and operated to prevent the buildup of hydraulic head on the bottom of the landfill.
7. The discharger is required to keep the system operational permanently.
8. The discharger shall assure that the foundation of the site, the refuse fill, and the structures which control leachate, surface drainage, erosion and gas for this site are constructed and maintained to withstand conditions generated during the maximum probable earthquake.
9. The landfill's cap shall be graded to a minimum slope of 3 percent in order to promote lateral runoff of precipitation.
10. A detailed survey of the landfill's cap must be made, to assure if cap meets the postclosure grading requirements.

11. The discharger shall maintain and monitor the waste unit to prevent a statistically significant increase to exist between water quality parameters at the point of compliance as provided in Section 2550.5, Article 5 of Chapter 15.
12. In the event of a release of a constituent of concern beyond the Point of Compliance, the site will begin a Compliance Period pursuant to Section 2550.6(a) of Chapter 15. During the Compliance Period, the discharger shall perform an Evaluation Monitoring Program and a Corrective Action Program.
13. The discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.
14. Methane and other landfill gases shall be adequately vented, removed from the landfill units, or otherwise controlled to minimize the danger of explosion, adverse health effects, nuisance conditions, or the impairment of beneficial uses of water due to migration.
15. The gas monitoring points (stations), must be inspected and repaired if needed.
16. This Board considers the property owner and site operator to have continuing responsibility for correcting any problems which arise in the future as a result of this waste discharge or related operations during the post-closure maintenance period.
17. The discharger shall maintain all devices or designed features, installed in accordance with this Order such that they continue to operate as intended without interruption as provided for by the performance standards adopted by the California Integrated Waste Management Board.
18. The discharger shall provide and maintain a minimum of two permanent surveyed monuments near the landfill from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the post-closure and maintenance periods. These monuments shall be installed by a licensed land surveyor or registered civil engineer.
19. The Regional Board shall be notified immediately of any failure occurring in the waste management unit. Any failure which threatens the integrity of containment features or the landfill shall be promptly corrected after approval of the method and schedule by the Executive Officer.
20. The discharger is required to report the amount of water they use per each

irrigation cycle. This information must be included in the site semi-annual report.

21. The discharger must install soil moisture content recorders at appropriate locations. The irrigation frequency and the amount of water used for should be based on soil moisture content.
22. The discharger shall maintain the facility so as to prevent a statistically significant increase in water quality parameters at the point of compliance as provided in Section 2550.5. According to Sections 2550.2 and 2550.3 of Chapter 15, the discharger is also required to establish a Water Quality Protection Standards (WQPS) and a list of Constituents of Concern (COCs) . The discharger shall meet the following schedule in implementing the requirements of this Provision. The discharger shall monitor a minimum of four quarters (one year) for the parameters listed in Table 2. Based upon the results of the monitoring, the discharger shall propose a revised list of COC's and monitoring parameters in accordance with the requirements of this Order and Article 5 of Chapter 15. Within 15 months following the adoption of this Order, the discharger shall submit a monitoring program to include a statistical analysis method to the Board for approval by the Executive Officer. A non statistical method (e.g., concentration trend analysis and comparison to practical quantitation limits) will be utilized to evaluate the significance of groundwater data until the proposed statistical methods are approved by the Board.
23. Following the establishment of the COC's list, the discharger is required to monitor the chemical quality of leachate in four of the thirteen leachate wells (GR-2, GR-9, GR-11 and GR-4) on a semi-annual basis for the parameters listed in Table 2.
24. The discharger must comply with all applicable provisions of Chapter 15 that are not specifically referred to in this Order.

C. PROVISIONS:

1. The discharger shall comply with all Prohibitions, Specifications, and Provisions of this Order, immediately upon adoption of this Order or as provided below.
2. The discharger shall submit a detailed **Post Earthquake Inspection and Corrective Action Plan** acceptable to the Executive Officer to be implemented in the event of any earthquake generating ground shaking of Richter Magnitude 7 or greater at or within 30 miles of the landfill. The report shall describe the containment features, and ground water monitoring and leachate control facilities potentially impacted by the static and seismic deformations of the landfill. The plan shall provide for reporting results of the post earthquake inspection to the Board within 72 hours of the occurrence of the earthquake. Immediately after an

earthquake event causing damage to the landfill structures, the corrective action plan shall be implemented and this Board shall be notified of any damage.

**REPORT DUE DATE: WITHIN THREE MONTHS OF ADOPTION
OF THIS ORDER**

3. The discharger shall submit a **Contingency Plan** to be instituted in the event of a leak or spill from the leachate facilities. The discharger shall give immediate notification to the San Francisco Bay Regional Water Quality Control Board, the Local Enforcement Agency (LEA), and the California Department of Toxic Substance Control. The discharger shall initiate its corrective action plan to stop and contain the migration of pollutants from the site.

**REPORT DUE DATE: WITHIN THREE MONTHS OF ADOPTION
OF THIS ORDER**

4. The discharger must install and implement a leachate recovery and removal system (LCRS) as required in Specifications B.4, B.5, B.6 and approved by the Executive Officer.

REPORT DUE DATE: September 1, 1995

5. The discharger shall file with the Regional Board Discharge Monitoring Reports prepared under the supervision of a registered civil engineer or California registered geologist performed according to any **Discharge Monitoring Program** issued by the Executive Officer.
6. The reports pursuant to these Provisions shall be prepared under the supervision of a registered engineer or California certified engineering geologist.
7. The discharger shall comply with the Self Monitoring Program which is attached to and made part of this order and/or any amendments thereafter.
8. The discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could impair the integrity of waste or leachate containment facilities or precipitation and drainage control structures.

NOTIFICATION: IMMEDIATELY

REPORT DUE DATE: WITHIN 7 DAYS AFTER THE INCIDENT

9. The discharger shall prepare, implement and submit a Storm Water Pollution

Prevention Plan in accordance with requirements specified in State Water Resources Control Board General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES Permit No. CAS000001).

REPORT DUE DATE: April 1, 1995

10. The discharger must reconstruct those portions of the landfill's cap which have settled due to the refuse decomposition process.
11. The discharger is required to remove all demolition debris from the site and/or to use them for inter-project road pad.
12. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.
13. This Board considers the property owner to have continuing responsibility for correcting any problems which may arise in the future as result of this waste discharge or related operations.
14. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contract with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.
15. The discharger shall permit the Board or its authorized representative, upon presentation of credentials:
 - a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
 - b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order or by any other California State Agency.

- d. Sampling of any discharge or ground water governed by this Order.
16. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies or organizations.
17. This Order is subject to Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics.
18. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions, Specifications and Provisions of this Order, shall also be provided to the Environmental Health Services Division of Alameda County.
19. This Order updates and amends WDR Order No. 80-37.

I, Steven R. Ritchie Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on December 14, 1994.



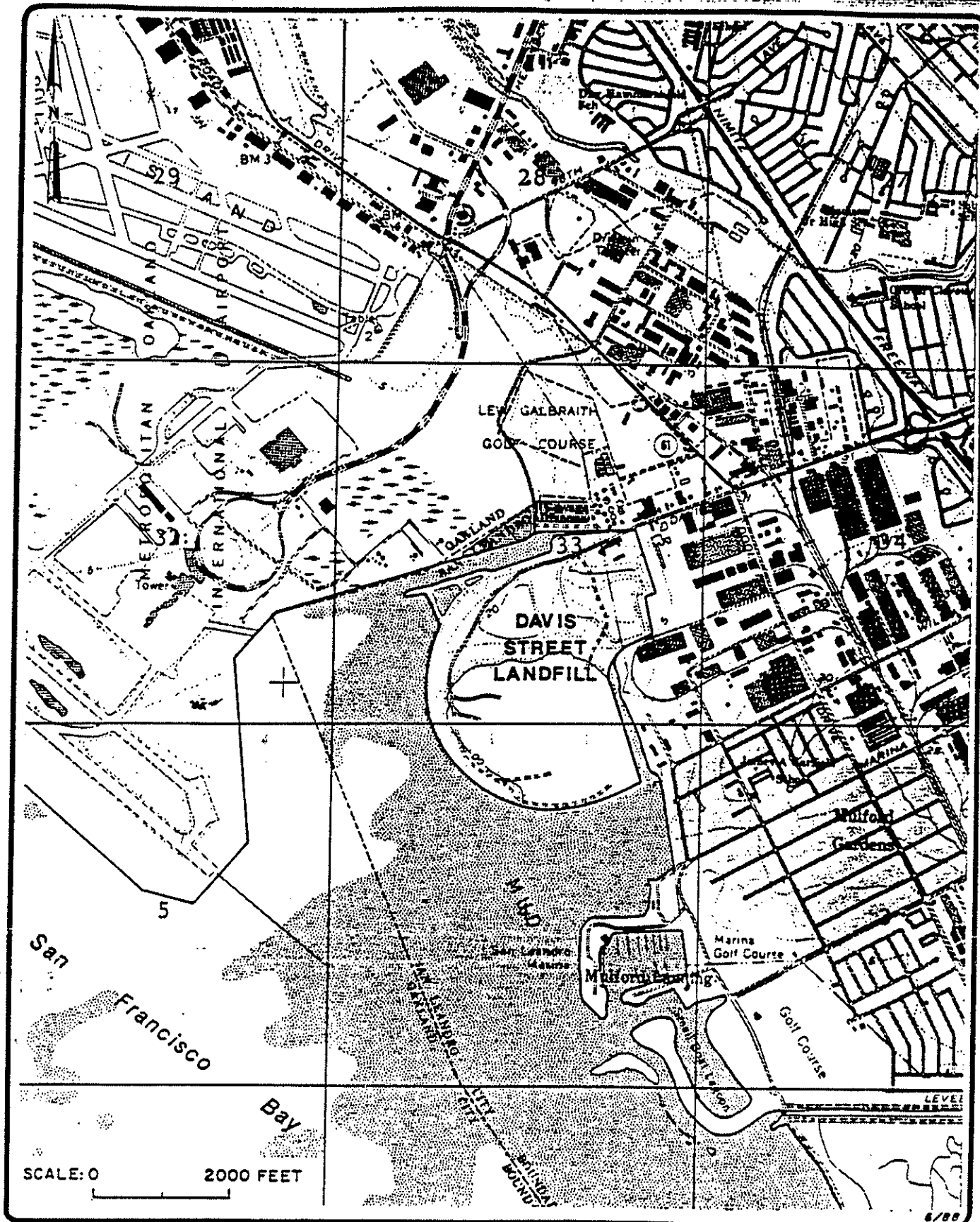
Steven R. Ritchie
Executive Officer

Attachments:

A. Figures:

1. Site Location Map
2. Regional geologic map

B. Discharge Monitoring Program



emcon
Associates

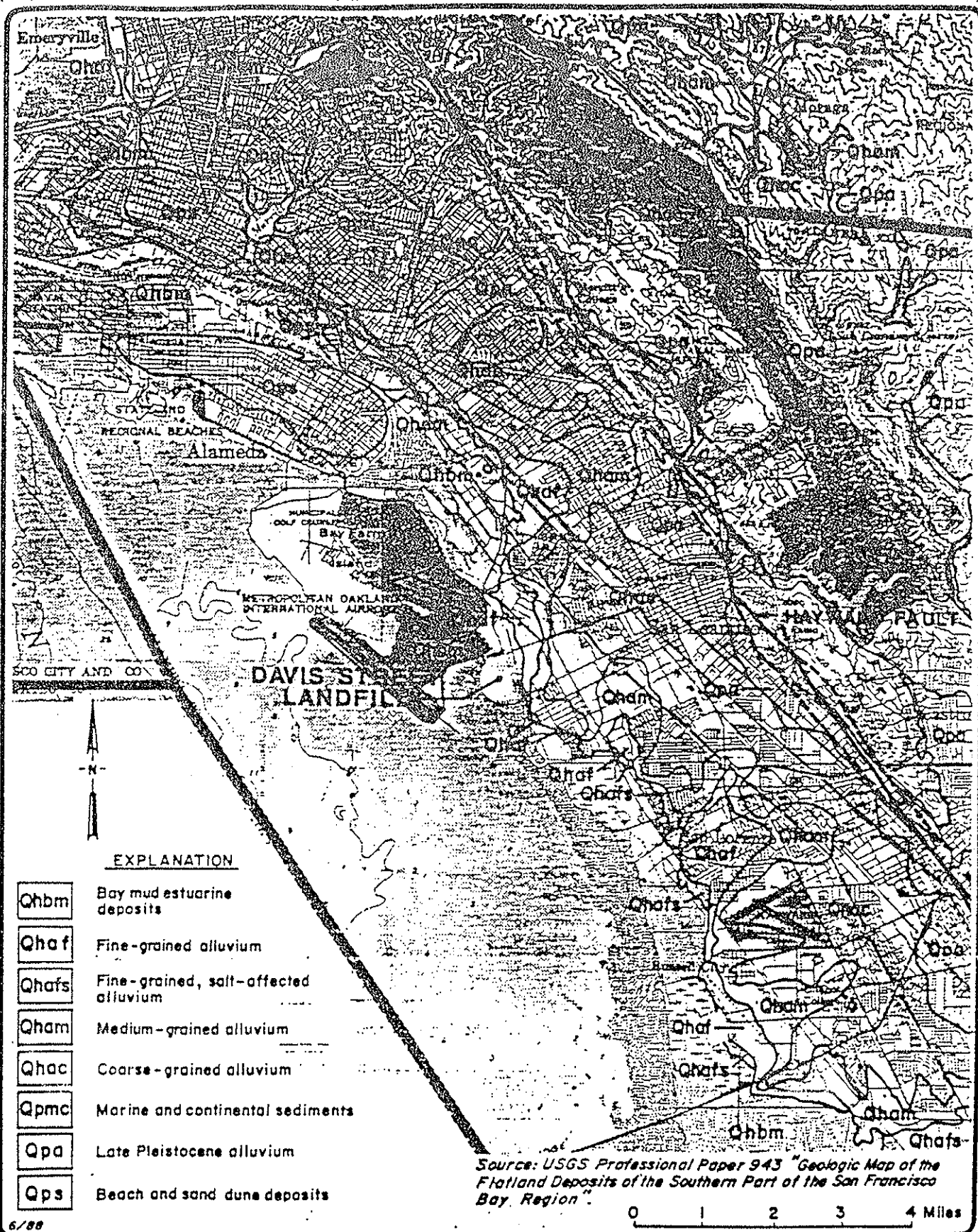
WASTE MANAGEMENT OF NORTH AMERICA, INC.
DAVIS STREET LANDFILL
SOLID WASTE ASSESSMENT TEST
SAN LEANDRO, CALIFORNIA

SITE LOCATION MAP

FIGURE

1

PROJECT NO.
253-02.03



EMCON
Associates

WASTE MANAGEMENT OF NORTH AMERICA, INC.
DAVIS STREET LANDFILL
SOLID WASTE ASSESSMENT TEST
SAN LEANDRO, CALIFORNIA

REGIONAL GEOLOGIC MAP

FIGURE

2

PROJECT NO.
253-02.03

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DISCHARGE MONITORING PROGRAM

FOR

OYSTER BAY REGIONAL PARK
SAN LEANDRO, ALAMEDA COUNTY

ORDER NO. 94-187

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Provision C.5 of Regional Board Order No. 94-187.

The principal purposes of a discharge monitoring program are:

- (1) to document compliance with waste discharge requirements and prohibitions established by the Board,
- (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge,
- (3) to develop or assist in the development of standards of performance, and toxicity standards,
- (4) to assist the discharger in complying with the requirements of Article 5, Chapter 15 as revised July 1, 1991.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and he/she or their authorized representative shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.
2. Receiving waters refers to any surface water which actually or potentially receives

surface or groundwater which pass over, through, or under waste materials or contaminated soils. In this case, the groundwater beneath and adjacent to the landfill areas and the surface runoff from the site are considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

- 1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
- 2) Discoloration and turbidity: description of color, source, and size of affected area.
- 3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 4) Evidence of beneficial use: presence of water associated wildlife.
- 5) Flow rate.
- 6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the waste management unit

- 1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on a map.)
- 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
- 3) Evidence of erosion and/or daylighted refuse.

c. The waste management unit

- 1) Evidence of ponded water at any point on the waste management facility.
- 2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source
- 3) Evidence of erosion and/or daylighted refuse.
- 4) Standard Analysis (SA) and measurements are listed on Table 2 (attached).

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The discharger is required to perform sampling, analyses, and observations in the following media:

1. Groundwater per Section 2550.7(b)
2. Surface water per Section 2550.7(c) and per the general requirements specified in Section 2550.7(e) of Article 5, Chapter 15 and
3. Vadose zone per Section 2550.7(d). This item is neither feasible nor applicable for this

landfill.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.
2. Date and time of sampling.
3. Date and time of analyses, and name of the person performing the analyses.
4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used where applicable; or reference to standard EPA methods.
5. Calculation of results.
6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Written detection monitoring reports shall be filed by the 15th day of the month following the report period. In addition, an annual report shall be filed as indicated in F.3 below. The reports shall be comprised of the following:

- a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last report period, and actions taken or planned for correcting the violations. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last report period, this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge, the report is true,

complete, and correct.

- b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:
 - 1) A graphic description of the velocity and direction of groundwater flow under/around the waste management unit, based upon the past and present water level elevations and pertinent visual observations. A statistical evaluation of the water quality monitoring data for all groundwater compliance points (As required under Part B. Table 1).
 - 2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field PH, temperature, and conductivity during purging, calibration of the field equipment, results of the PH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.
 - 3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualification of the person actually taking the samples, and any other observations.
- c. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.
- d. Laboratory statements of results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and shall sign all reports of such work submitted to the Board.
 - 1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be submitted for review and approval by the Executive Officer prior to use.
 - 2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; and explanation for any recovery rate that is outside of the normal range specified by the EPA for that method;

the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name of the person(s) performing the analyses.

- e. An evaluation of the effectiveness of the leachate monitoring or control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.
- f. A summary and certification of completion of all standard observations for the waste management unit, the perimeter of the waste management unit, and the receiving waters.
- g. The quantity and types of wastes disposed of during the past quarter, and the locations of the disposal operations. [Not applicable for this site]

2. CONTINGENCY REPORTING

- a. A report shall be made by telephone of any seepage from the disposal area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:
 - 1) a map showing the location(s) of discharge;
 - 2) approximate flow rate;
 - 3) nature of effects; i.e., all pertinent observations and analyses; and
 - 4) corrective measures underway or proposed.
- b. A report shall be made in writing to the Board within seven days of determining that a statistically significant increase occurred at a point of compliance (between a down gradient sample and a WQPS). Notification shall indicate what WQPS(s) has/have been exceeded. The discharger shall immediately re-sample at the compliance point where this difference has been found and reanalyze.
- c. If re-sampling and analysis confirms the earlier finding of a statistically significant increase between monitoring results and WQPS(s), the discharger must submit to the Board an amended Report of Waste Discharge as specified in Section 2550.8(k)(5) for establishment of an Evaluation Monitoring Program (EMP) meeting the requirements of Section 2550.9 of Chapter 15.
- d. Within 180 days of determining statistically significant evidence of a release, submit to the regional board an engineering feasibility study for a Corrective Action Program (CAP) necessary to meet the requirements of Section 2550.10. At

a minimum, the feasibility study shall contain a detailed description of the corrective action measures that could be taken to achieve background concentrations for all constituents of concern.

3. REPORTING

By January 31 of each year, the discharger shall submit an annual report to the Board covering the previous calendar year. This report shall contain:

- a. Tabular and graphical summaries of the monitoring data obtained during the previous year; the report should be accompanied by a 5-1/4" or 3-1/2" computer data disk, MS-DOS ASCII format, tabulating the year's data.
- b. A comprehensive discussion of the compliance record, and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements.
- c. A written summary of the groundwater analyses indicating any change in the quality of the groundwater
- d. An evaluation of the effectiveness of the leachate monitoring/control facilities, which includes an evaluation of leachate buildup within the disposal units, a summary of leachate volumes removed from the units, and a discussion of the leachate disposal methods utilized.

4. WELL LOGS

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These shall be submitted within 30 days after well installation.

PART B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. ON-SITE OBSERVATIONS - Report Semi-annually

STATION	DESCRIPTION	OBSERVATIONS	FREQUENCY
V-1 thru V-'n'	Located on the waste disposal area as delineated by a 500 foot grid network.	Standard observations for the waste management unit.	monthly
P-1 thru P-'n' (perimeter)	Located at equidistant intervals not exceeding 1000 feet around the perimeter of the waste management unit.	Standard observations for the perimeter.	monthly

A map showing visual and perimeter compliance points (V and P stations) shall be submitted by the discharger in the semi-annually monitoring report.

B. GROUNDWATER, LEACHATE AND SURFACE WATER MONITORING

Report Semi-annually

Groundwater, surface water, Leachate and seepage monitoring points shall be monitored as outlined below on Table 1 and Table 2 and shown on Figure 1 (Attached).

During the wet season (October through April), estimate or calculate the volume of storm water discharge from each outfall and collect and analyze samples of storm water discharge from two storm events during each wet season which produce significant storm water discharge as defined in State Water Resources Control Board Order No. 92-12-DWQ (General Permit for Storm Water Discharges). The samples must be analyzed for:

- pH, total suspended solids (TSS), specific conductance, and total organic carbon (TOC);
- Toxic chemicals and other pollutants that are likely to be present in storm water discharge in significant quantities.

TABLE 1

Monitoring Points For Each Monitoring Medium.:

MONITORING MEDIA	COMPLIANCE POINTS	UPGRADIENT POINTS
Surface Water	SW1, SW2	SW3
Groundwater	1. MW-Series wells (MW-01 to MW-06), 2. G-Series wells (G-02 to G-04)	MW-04 G-01
Leachate	* GR-Series wells (GR-1 to GR-13)	Not Applicable
Seepage	S-1 thorough S-n	-

* GR-Series wells are not considered compliance points.

C. FACILITIES MONITORING

The discharger shall inspect all facilities to ensure proper and safe operation once per quarter and report quarterly. The facilities to be monitored shall include, but not be limited to:

- a. Leachate collection and removal systems;
- b. Surface water monitoring points;
- c. Shallow and deep groundwater monitoring wells;
- d. Perimeter diversion channels;
- e. Leachate wells;

I, Steven Ritchie Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. 94-187
- 2. Is effective on the date shown below.
- 3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.



Steven R. Ritchie
Executive Officer

Date Ordered: December 14, 1994

Attachments:

Figure 1 - Monitoring Points Location map

Table 2 - Discharge Monitoring Plan

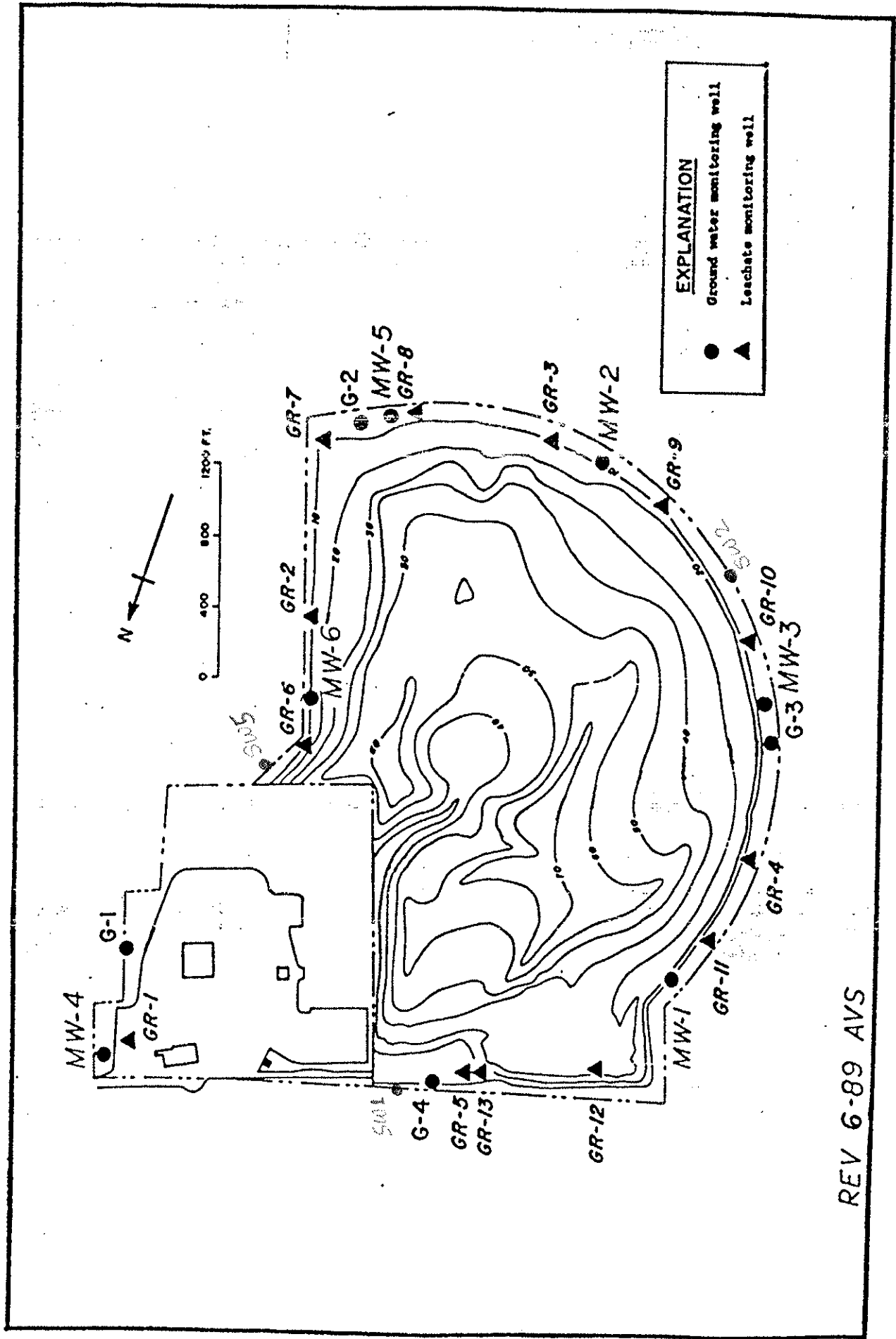


Table 2 - Discharge Monitoring Plan, List of Analytical Parameters

Parameters	Method (USEPA)	Frequency	Reference
Leachate Level Measurements	Field	Semi-annual	1
Water Level Measurements	Field	Semi-annual	1
Temperature Measurements	Field	Semi-annual	1
Electrical Conductivity	Field	Semi-annual	3
pH	Field	Semi-annual	3
Total Organic Carbon	415.1	Semi-annual	2
Total Nitrogen (the sum of Nitrate Nitrogen and Kjeldahl Nitrogen)	351.2	Semi-annual	2
Turbidity	Field	Semi-annual	1 ,4
Alkalinity, bicarbonate	310.1	Semi-annual	2
Alkalinity, hydroxide	310.1	Semi-annual	2
Biological Oxygen Demand	410.4	Semi-annual	4
Amonia as N (nonionized)	350.1	Semi-annual	4
Chemical Oxygen Demand	410.2	Semi-annaul	2 ,4
Total Dissolved Solids	160.1	Semi-annual	2 ,4
Total Suspended Solids	160.2	Semi-annual	2 ,4
Volatile Organic Compounds (Appendix I)	8260 w/ capillary column	Once in 5 yrs	3
Volatile Organic Compounds (Appendix I&II)	8260/w capillary column	Once in 5 yrs	3
Appendix II Semi-volatile Organics Compounds	8270	Once in 5 yrs	3
Organophosphorus Pesticides & PCB's	8140 w/ capillary column	Once in 5 yrs	3

Chlorinated Herbicides	8150 w/ capillary column	Once in 5 yr	3
Arsenic	7061	Semi-annual	3
Cadmium	7131	Semi-annual	3
Chromium	6010	Semi-annual	3
Copper	6010	Semi-annual	3
Lead	7421	Semi-annual	3
Mercury	7470	Semi-annual	3
Nickel	6010	Semi-annual	3
Selenium	7740	Semi-annual	3
Silver	6010	Semi-annual	3
Zinc	6010	Semi-annual	3

1. Not Applicable
2. Methods for Chemical Analysis of Water and Wastes, EPA600/4/79/029, revised March 1983
3. EPA SW-846
4. Only for surface water monitoring